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## (54) HIGH POLYMER AS CARRIER OF MEDICINE AND SUSTAINED RELEASE CARCINOSTATIC AGENT

(57)Abstract:

PURPOSE: To obtain a poly- $\gamma$ -glutamic acid which is a sale high polymer for carrying a medicine capable of retaining pharmacodynamic effects for a long time.

CONSTITUTION: A poly— $\gamma$ -glutamic acid (hereinafter referred to as  $\gamma$ -PGA) expressed by the formula [(n) is positive integer] or its salt is obtained by polymerizing an amino group of glutamic acid with a  $\gamma$ -carboxyl group thereof by formation of peptide bond and has high accumulating property to cancer tissue and is excellent in sustained release property of medicine and exhibits biodegradability. A carcinostatic agent (e.g. 5–fluorouracil) is carried through a chemical bond such as ester bond or amide bond onto  $\gamma$ -PGA and the medicine is fed to a cancer tissue. A carcinostatic agent carried on  $\gamma$ -PGA sustains carcinostatic action for a long period by gradually hydrolyzing the ester bond, etc. The dose of the medicinal composition containing  $\gamma$ -PGA as a main ingredient is 50–1500mg/adult daily.

$$H = \begin{pmatrix} H \\ N - C - CH_{2} - CH_{2} - C \\ H C = 0 \\ OH \end{pmatrix} = OH$$

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